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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/702,185	10/30/2000	Shirley Lee	10982031-1	1662

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EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 10/24/2002

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/702,185

Applicant(s)

LEE ET AL.

Examiner

Callie E. Shosho

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1714

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 15 October 2002 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☒ Applicant's reply has overcome the following rejection(s): 35 USC 102 rejection utilizing Kablanov (U.S. 6,261,350).
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because see attachment.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: None.Claim(s) objected to: None.Claim(s) rejected: 17,21-27,30,32 and 50-57.Claim(s) withdrawn from consideration: 1-16 and 34-49.

8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☒ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). 10.
10. ☐ Other: _____

Attachment to Advisory Action

1 Applicants' amendment and 1.132 declaration have been carefully considered, but with the exception of arguments relating to Kabalnov (U.S. 6,261,350), they are not persuasive.

With respect to Kabalnov, it is noted that applicant has submitted a 1.131 declaration (Paper No. 12) that establishes the conception and reduction to practice of the present invention. The 131 declaration is proper and enables the applicants to swear behind the filing date of 8/17/99 of Kabalnov. Thus, the rejection of record with respect to Kabalnov is overcome.

With respect to the remaining rejections of record, namely those set forth in paragraphs 8-9 of the office action mailed 8/19/02, Paper No. 9, i.e. Kurabayashi et al. (U.S. 5,700,314) or Takahashi et al. (U.S. 5,624,484) either of which in view of Watanabe et al. (U.S. 6,080,229) and either Zhu (U.S. 5,889,083) or EP 735120 (paragraph 8) and further in view of Yatake (U.S. 6,004,389) (paragraph 9), applicants argue that there is no motivation to combine Takahashi et al. or Kurabayashi et al. with either Zhu or EP 735120 given that neither Zhu or EP 735120 discloses underprinted fixer fluid as required in the present claims.

However, it is noted that while neither Zhu or EP 735120 disclose all the features of the present claimed invention, note that Zhu or EP 735120 is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather each reference teaches a certain concept, namely the use of styrene maleic anhydride binder in ink composition and in combination with the primary reference, discloses the presently claimed invention. If the

secondary reference contained all the features of the present claimed invention, it would be identical to the present claimed invention, and there would be no need for secondary references.

Further, it is significant to note that col.9, lines 36-39 and 46-47 of Kurabayashi et al. disclose that the ink contains anionic high molecular weight substances such as alkali-soluble resins to "more effectively carry out" the invention. Similarly, col.11, lines 30-43 of Takahashi et al. disclose the use of anionic polymeric substance so that "the effects of the present invention can be brought about more effectively". While there is no disclosure of the specific type of anionic high molecular weight substance or anionic polymeric substance as presently claimed, this is why Kurabayashi et al. or Takahashi et al. is used in combination with either Zhu or EP 735120.

Applicants also argue that given that both Zhu and EP 735120 disclose that the anionic binder is used to bind colorant to substrate, there is no motivation to utilize either reference given that the cations in the presently claimed underprinted fixer fluid would interfere with the anionic binder molecules binding the anionic colorant to the substrate. However, it is noted that applicants have not provided any clear and convincing evidence to support this position. Further, given that Zhu discloses that the anionic binder binds the colorant to the substrate due to its film-forming ability, it would have been natural to one of ordinary skill in the art to infer, absent evidence to the contrary, that the anionic binder would function so as to bind colorant to substrate regardless of whether the substrate was first coated with fixer fluid containing cations or not.

Applicants also argue that there is no motivation to combine Kurabayashi et al. or Takahashi et al. with Watanabe et al. given that Kurabayashi et al. and Takahashi et al. each

disclose fixer fluid comprising quaternary ammonium salts while Watanabe et al. disclose fixer fluid comprising polyvalent metal salts and given that there is nothing in either reference which discloses the desirability of fixer fluid comprising both quaternary ammonium salts and polyvalent metal salts. However, it is noted that col.2, line 57-col.3, line 5 of Watanabe et al. disclose that the use of polyvalent metal salts, which provides cations such as calcium, aluminum, etc. as presently claimed, produces fixer fluid which prevents bleeding of ink and produces image with high color density that is free from feathering. In light of this motivation, it is the examiner's position that the combination of either Kurabayashi et al. or Takahashi et al. with Watanabe et al. is proper.

Similarly, with respect to Yatake, applicants argue that there is no motivation to further combine Kurabayashi et al. or Takahashi et al. in view of Watanabe et al. and Zhu or EP 735120 with Yatake given that the fixer fluid of Kurabayashi et al. or Takahashi et al. uses quaternary ammonium salts and the fixer fluid of Yatake uses polyethyleneimine. However, it is noted that while both Kurabayashi et al. and Takahashi et al. disclose that one type of specific cationic substance found in the fixer fluid is a quaternary ammonium group, the disclosure of either Kurabayashi et al. or Takahashi et al. is not limited to this particular compound. That is, the disclosure of either Kurabayashi et al. or Takahashi et al. does not limit the fixer fluid to only quaternary ammonium compounds. Further, it is the examiner's position that there is proper motivation to combine Yatake with either Kurabayashi et al. or Takahashi et al. given that Yatake discloses the equivalence and interchangeability of polyallylamine, i.e. cationic polymer disclosed by Kurabayashi et al. or Takahashi et al., with polyethyleneimine, as presently claimed.

Further, should applicants point to the comparative data present in the instant specification as evidence to establish the criticality of using anionic binder in ink and cations in fixer fluid as presently claimed, it is the examiner's position that the data does not establish unexpected or surprising results over the cited prior art for the following reasons.

With respect to the anionic binder, it is noted that example 1, pages 16-18 of the present specification, compares inks within the scope of the present claims, i.e. comprising styrene-maleic anhydride binder (inks IV-2, IV-3 and IV-4) with ink outside the scope of the present claims, i.e. comprising no styrene-maleic anhydride binder (ink IV-1). It is shown that the inks of the present invention possess higher chroma. However, it is the examiner's position that the data does not establish unexpected or surprising results over the cited prior art given that (i) Kurabayashi et al. and Takahashi et al. already recognize the criticality of using anionic polymer in the ink composition in order to more effectively carry out the invention and (ii) either Zhu or EP 735120 also already recognize the criticality of using styrene-maleic anhydride copolymer in order to effectively bind colorant to substrate.

With respect to the cations present in the fixer fluid, it is noted that the fixer fluid of example 1 (inventive), which comprises calcium salt, is compared to fixer fluid of example 2 (comparative), which does not comprise calcium salt, in Figure 8. However, it is the examiner's position that the data does not establish unexpected or surprising results over the cited prior art given that there is not proper side-by-side comparison between the fixer fluid of example 1 and the fixer fluid of example 2. That is, given the differences between the fixer fluids, i.e. different amounts of polyethyleneimine and different types and amounts of additional ingredients (glycol, Bioterge, Tergitol, Tinulux), it is not clear if the differences between the fixer fluids is due to the

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absence of calcium salt or to the other differences between the fixer fluids. Further, the results set forth in Figure 8 are confusing given the chroma found using presently claimed fixer fluid (example 1), denoted as P R2 in Figure 8, is less than the chroma obtained using the comparative fixer fluid (example 2), denoted as P UP. Thus, the fixer fluid of the present invention would appear to produce poor results. Clarification is requested.

CS

Callie Shosho

10/23/02

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